

CLAIMS

- 1 1. An apparatus for applying a lubrication layer onto hard disks, comprising:
2 a lubrication tank being adapted to hold a lubricant bath;
3 a disk holding means being adapted to hold a plurality of hard disks, each said
4 hard disk being disposed at a corresponding location along a length of said disk holding
5 means; and
6 a plurality of projecting members, each said projecting member being disposed
7 within said tank and adapted to be disposed between an adjacent pair of said plurality of
8 hard disks, to interrupt a substantial portion of surface waves of said lubricant bath that
9 travel between said adjacent pair of hard disks.
- 1 2. An apparatus for applying a lubrication layer onto hard disks as described in
2 claim 1, wherein each of said projecting members are disposed at the surface of said
3 lubricant bath.
- 1 3. An apparatus for applying a lubrication layer onto hard disks as described in
2 claim 1, wherein said plurality of projecting members are integrally formed within a bath
3 cover that is disposed to position said projecting members at a surface of said lubricant
4 bath.
- 5 4. An apparatus for applying a lubrication layer onto hard disks as described in
6 claim 3, wherein said bath cover comprises a generally rectangular integrally formed

7 member having a central mandrel passage slot formed therethrough and a plurality of
8 disk passage slots formed therethrough generally perpendicularly to said mandrel passage
9 slot.

10

11 5. An apparatus for applying a lubrication layer onto hard disks as described in
12 claim 1 wherein said projecting members include side surfaces for making contact with
13 said surface waves, and wherein said side surfaces are irregularly shaped to diminish
14 reflection of said surface waves from said projecting members.

1 6. An apparatus for applying a lubrication layer onto hard disks as described in
2 claim 1 wherein said projecting members include side surfaces for making contact with
3 said surface waves, and wherein said side surfaces are formed of a porous material to
4 diminish reflection of said surface waves from said projecting members.

1 7. A hard disk, comprising:
2 an outer surface of the hard disk;
3 a lubrication layer being disposed on said outer surface, wherein said lubrication
4 layer is substantially free of thickness variations caused by surface waves.

1 8. A hard disk as described in claim 7, wherein said lubrication layer is formed by a
2 process comprising:
3 lowering a plurality of hard disks into a lubricant bath;
4 removing said hard disks from the lubricant bath; and

5 substantially intercepting surface waves within said lubricant bath, said
6 intercepting of said surface waves occurring before said surface waves reach another of
7 said hard disks.

1 9. A hard disk as described in claim 8 wherein said substantially intercepting of said
2 surface waves is accomplished by disposing a wave intercepting member upon said
3 surface of said lubricant bath between adjacent ones of said plurality of hard disks.

1 10. A hard disk as described in claim 9, wherein said wave intercepting member
2 includes a plurality of projecting members that are integrally formed within a bath cover
3 that is disposed to position said projecting members at said surface of said lubricant bath.

4 11. A hard disk as described in claim 10, wherein said bath cover comprises a
5 generally rectangular member having a central mandrel passage slot formed therethrough
6 and a plurality of disk passage slots formed therethrough generally perpendicularly to
7 said mandrel passage slot.

8
9 12. A hard disk as described in claim 10 wherein said projecting members include
10 side surfaces for making contact with said surface waves, and wherein said side surfaces
11 are irregularly shaped to diminish reflection of said surface waves from said projecting
12 members.

1 13. A hard disk as described in claim 10 wherein said projecting members include
2 side surfaces for making contact with said surface waves, and wherein said side surfaces
3 are formed of a porous material to diminish reflection of said surface waves from said
4 projecting members.

1 14. A process for applying a lubrication layer onto an outer surface of a hard disk,
2 comprising:
3 lowering a plurality of hard disks into a lubricant bath;
4 removing said hard disks from the lubricant bath; and
5 substantially intercepting surface waves within said lubricant bath, said
6 intercepting of said surface waves occurring before said surface waves reach another of
7 said hard disks.

1 15. A hard disk as described in claim 14 wherein said substantially intercepting of
2 said surface waves is accomplished by disposing a wave intercepting member upon said
3 surface of said lubricant bath between adjacent ones of said plurality of hard disks.

1 16. A process for applying a lubrication layer onto an outer surface of a hard disk as
2 described in claim 15, wherein said wave intercepting member includes a plurality of
3 projecting members that are integrally formed within a bath cover that is disposed to
4 position said projecting members at said surface of said lubricant bath.

5 17. A process for applying a lubrication layer onto an outer surface of a hard disk as
6 described in claim 16, wherein said bath cover comprises a generally rectangular member
7 being defined by outer edges thereof, and having a central mandrel passage slot formed
8 therethrough and a plurality of disk passage slots formed generally perpendicularly to
9 said mandrel passage slot.

10

11 18. A process for applying a lubrication layer onto an outer surface of a hard disk as
12 described in claim 16 wherein said projecting members include side surfaces for making
13 contact with said surface waves, and wherein said side surfaces are irregularly shaped to
14 diminish reflection of said surface waves from said projecting members.

15 19. A process for applying a lubrication layer onto an outer surface of a hard disk as
16 described in claim 16 wherein said projecting members include side surfaces for making
17 contact with said surface waves, and wherein said side surfaces are formed of a porous
18 material to diminish reflection of said surface waves from said projecting members.